ON THE SPIDER DIVERSITY IN AND AROUND DEEG-TOWN, BHARATPUR (RAJASTHAN)

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ABSTRACT

Deeg-is historic town and is 36 k.m. away from Bharatpur, a place internationally known for birds. Extensive agriculture is done in the area and variety crops are sown. The crops as such are suffered a lot from pest infestations. The spiders impose natural check on insect pest populations. No sincere and organized studies were made on the spiders of this area. Few reports, however, are available. In the present study 24 species from 10 families under 16 genera are being reported. Salticidae (Jumping spiders) were most commonly occurred species, whereas Aranidae and Salticidae dominated the agriculture fields.

Key words: - Deeg-Town, Spider fauna, Diversity.

INTRODUCTION

The order Araneae is the seventh most diverse' animal order in the world with count of 42,751 spider species belonging to 3859 genera and 110 families (Platnick, 2011).Tikader(1987) reported 1067 species of spiders from India under 249 genera and 43 families. Very scanty reports on the spider of Deeg-Town are available (Kain and Trigunayat, 2013) therefore, a survey was carried out. The present study will enrich the database on diversity in the said area.

MATERIAL AND METHODS

Deeg a town in Bharatpur district in the State of Rajasthan, India and is located 27.47^{O} N latitude and 77.33^{O} E longitudes. The areas is under the cultivation of different type of crops providing habitat for different kinds of invertebrates including spiders.The study was carried out from July 2011 to March 2012. Bushes tree trunks, forest floor, foliage and grass lands were searched for spiders and collected by using various methods such as hand picking, pitfall trapping, sweep netting, and cryptic searchings.The identification was done following Tikader (1980, 1982, and 1987) Murphy (2000) as well as pictorial guide (Levi, 2002; Sebastian & Peter, 2009).

The Collected specimens were preserved in 70% ethyl alcohol with a few drops of glycerin (Prasad, 1985).

RESULTS AND DISCUSSION

A total of 24 species of spiders belonging to 10 families under 16 genera were recorded.

Table – 1, Spider species recorded from Deeg Town, Bharatpur, (Raj.) India

Family	Species	Guild	Sp. Count
Agelenidae	*(i) Agelenidae sp.*	Funnel Web builders	5
Araneidae	*(i) Argiope aemula*	Orb web builders	18
	(ii) Argiope anasuja	Orb web builders	21
	(iii) Cytrophora faei	Orb web builders	9
	(iv) Cyrtophora cicatrosa	Orb web builders	17
	(v) Cyrtophora citricola	Orb web builders	19
Gnaphosidae	*(i) Drassodes sp.*	Ground runner	5
Hersiliidae	*(i) Hersilia savignyi*	Foliage runner	7
Lycosidae	*(i)Geolycosa urbana*	Ground runner	1
	(ii) Lycosa pictula	Ground runner	9
	(iii) Perdosa biramnica	Ground runner	22
Nephilidae	*(i) Nephilia sp.*	Orb web builders	8
	(ii) Nephilia khuli	Orb web builders	5
Oxyopidae	*(i) Oxyopes biramanicus*	Foliage runner	23
	(ii) Oxyopes javanus	Foliage runner	27
	(iii) Oxyopes sp.	Foliage runner	3
Pholcidae	*(i) Artema atlanta*	Irregular web builders	29
	(ii) Pholcus phalangiodes	Irregular web builders	5
Salticidae	*(i) Plexippus paykuli*	Foliage runner	26
	(ii) Phidippus pateli	Foliage runner	13
	(iii) Phidippus indicus	Foliage runner	9
	(iv) Portia assamensis	Foliage runner	7
	(v) Portia sp.	Foliage runner	6
Thomisidae	*(i) Thomisus projectus*	Ambusher	3

Table 2, Number of genera and species of spiders from Deeg Town, Bharatpur

Sr.No.	Families	No. of Genera	No. of Species
1.	Agelenidae	1	1
2.	Araneidae	2	5
3.	Gnaphosidae	1	1
4.	Hersilidae	1	1
5.	Lycocidae	3	3
6.	Nephilidae	1	2
7.	Oxyopidae	1	3
8.	Pholcidae	2	2
9.	Salticidae	3	5
10.	Thomisidae	1	1

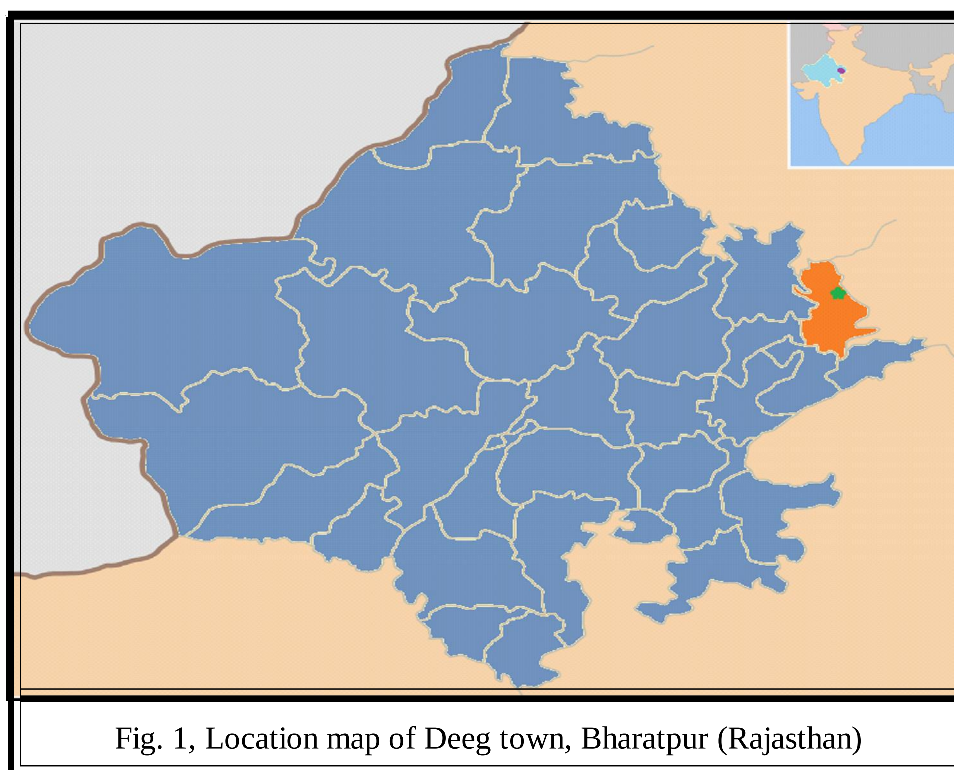


Fig. 1, Location map of Deeg town, Bharatpur (Rajasthan)

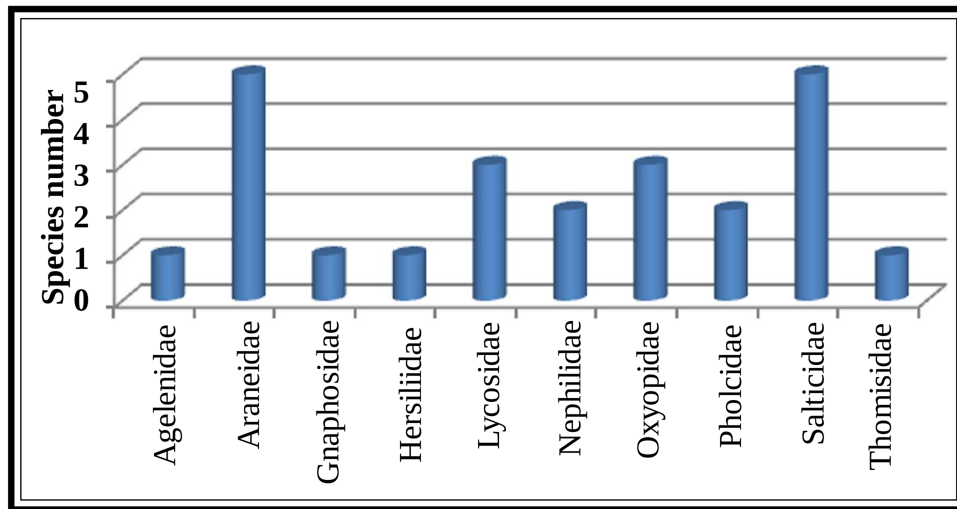


Fig.1: Spiders and their number recorded during the study

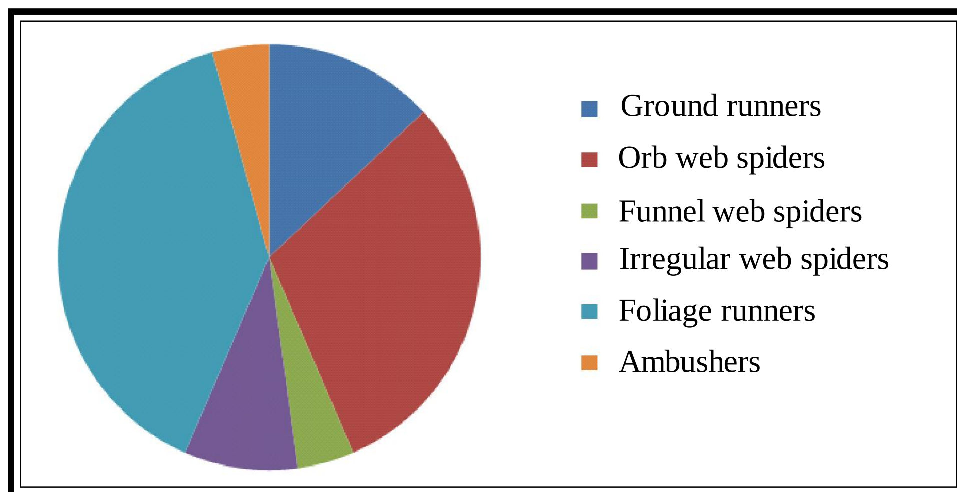


Fig.2: Comparative Guild density (Percentage) of spiders recorded during the study.

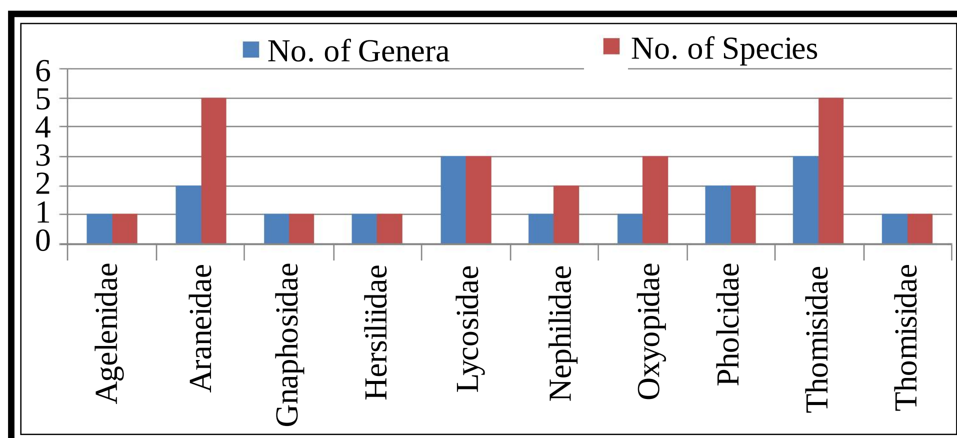


Fig.3: Number of genera and species of spider during the study.

Out of 24 species of spiders, 9 species were foliage runners, 3 species ground runners, 7 species orb web weaver, single species each of funnel web weavers and ambushers, no species were recorded from single line web weaver, horizontal dome shape weaver, and sheet web weavers. The spider fauna of Deeg was not found deviating from the nearby areas viz. Vrindavan, Agra, and Mathura (Lawania and Trigunayat 2013 a, b, c, d, e). This is probably due to the similar weather and cropping pattern that provides almost similar habitats. Only few species were different that can be attributed for individual species variation.

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